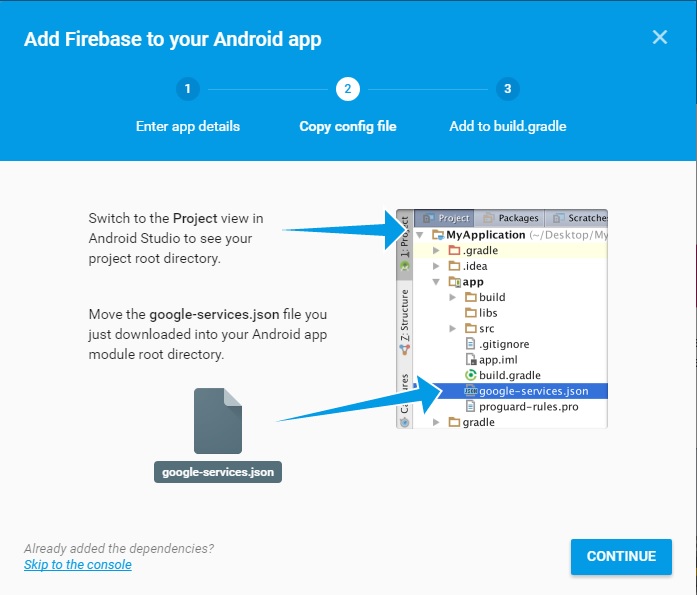
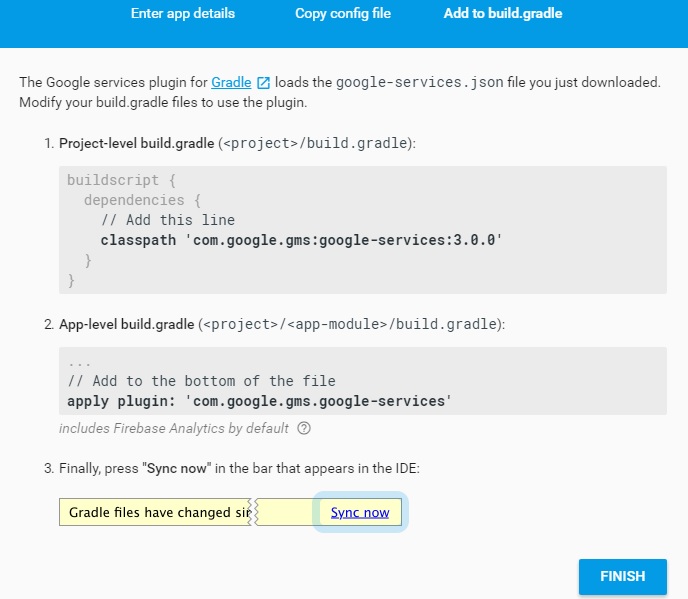
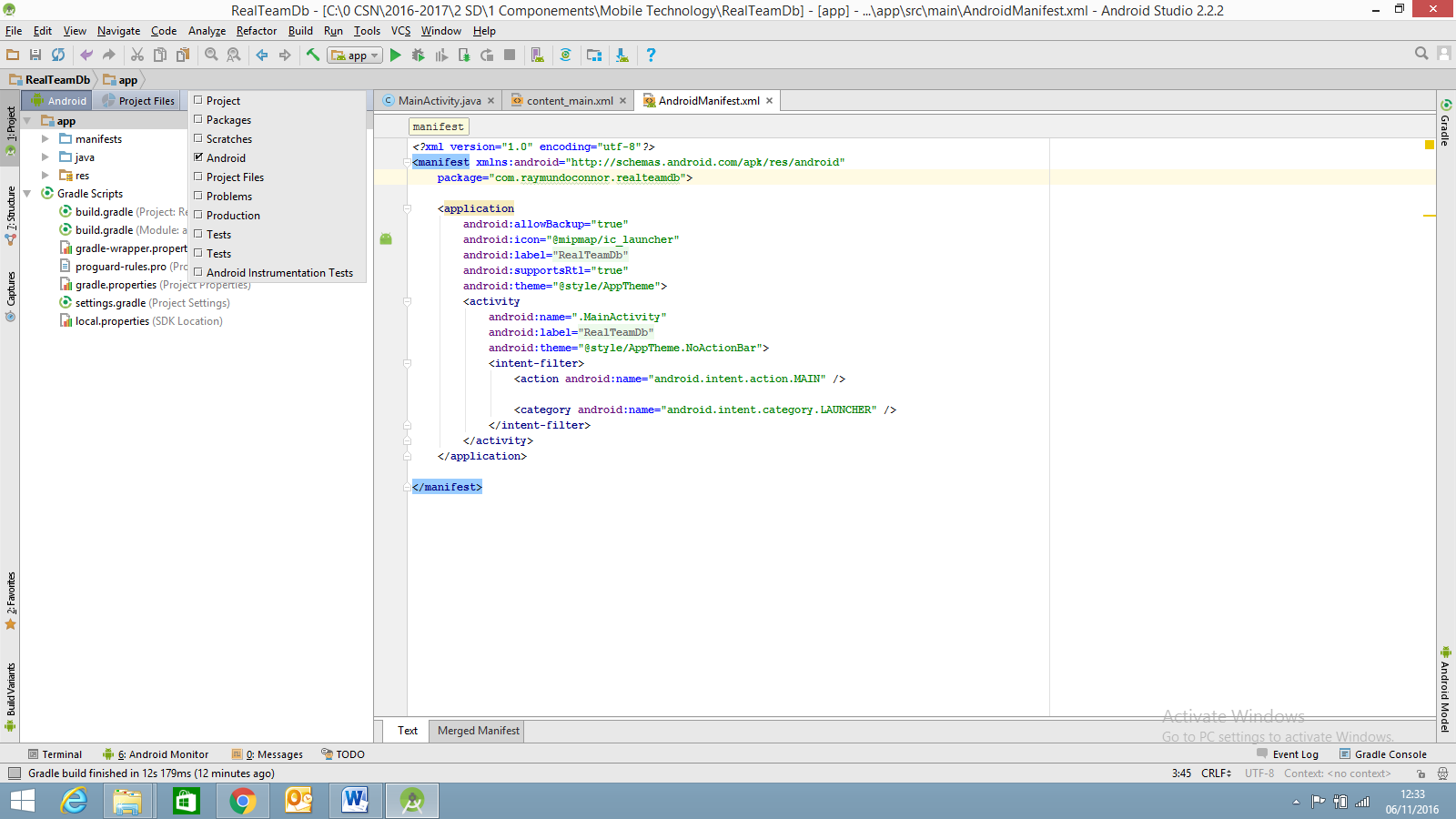
# Android Apps and Firebase

* Create a new project in Android Studio and copy the package name of your new project from Android Studio (eg. Com.raymundoconnor.realtimedb)
* Log into the Firebase console and create a new project (be careful as you are limited to 5 or so projects) and create a new Project in Firebase (Note: you will need to paste your package name when required)
* Download the json file and copy and paste same as shown in the screenshots below

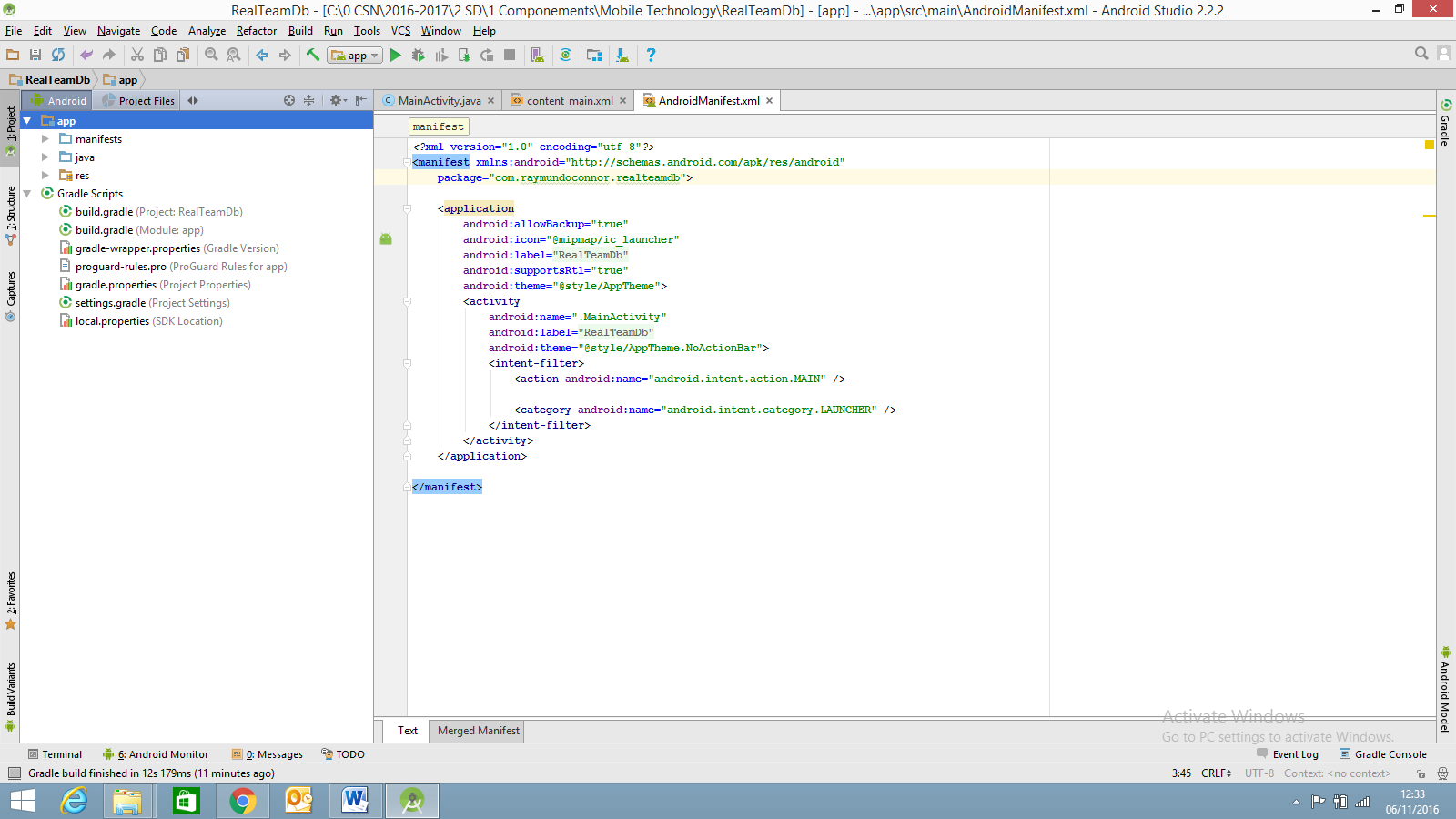


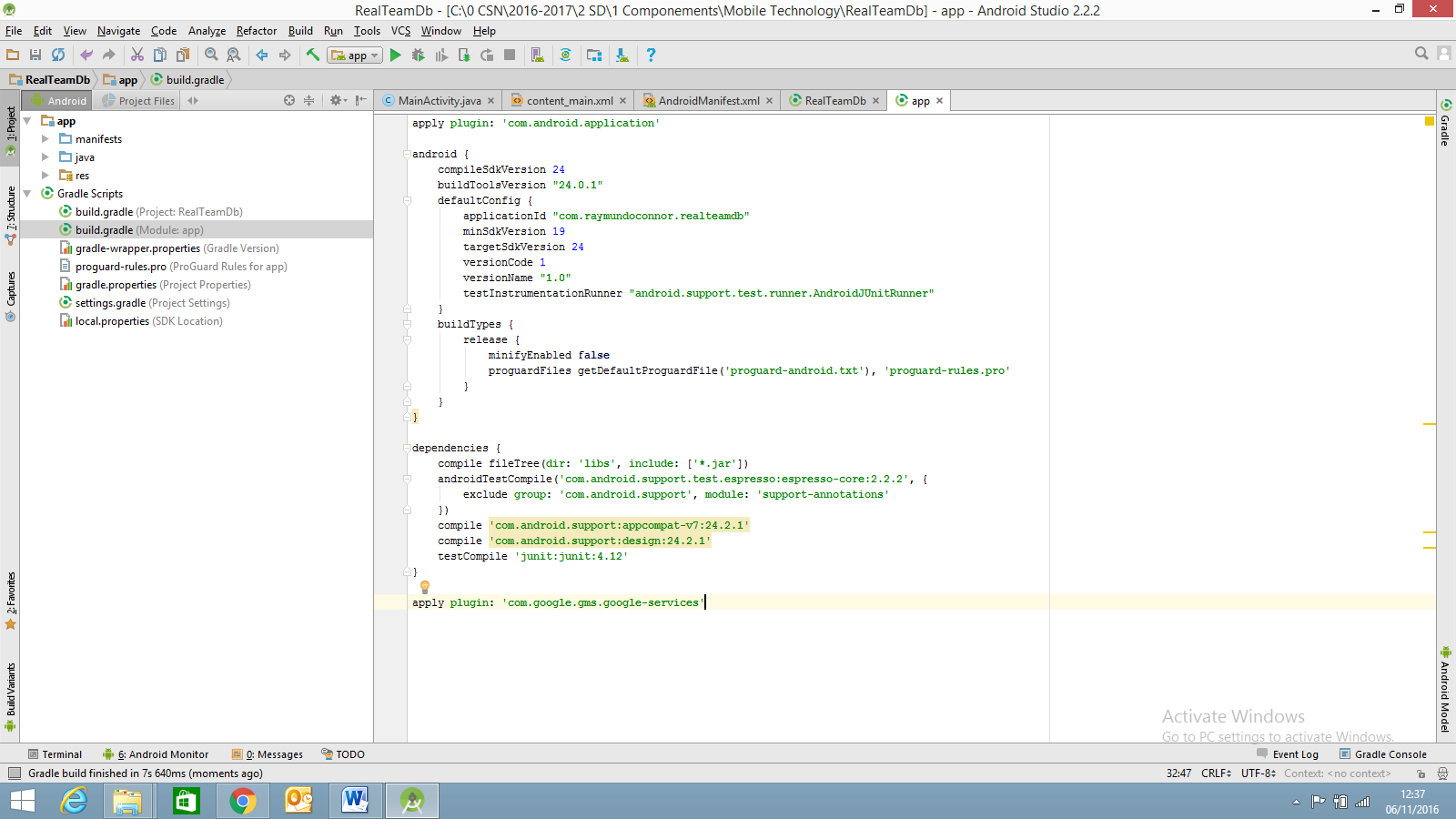
Paste the following code in the correct files as shown in the following 3 screenshots



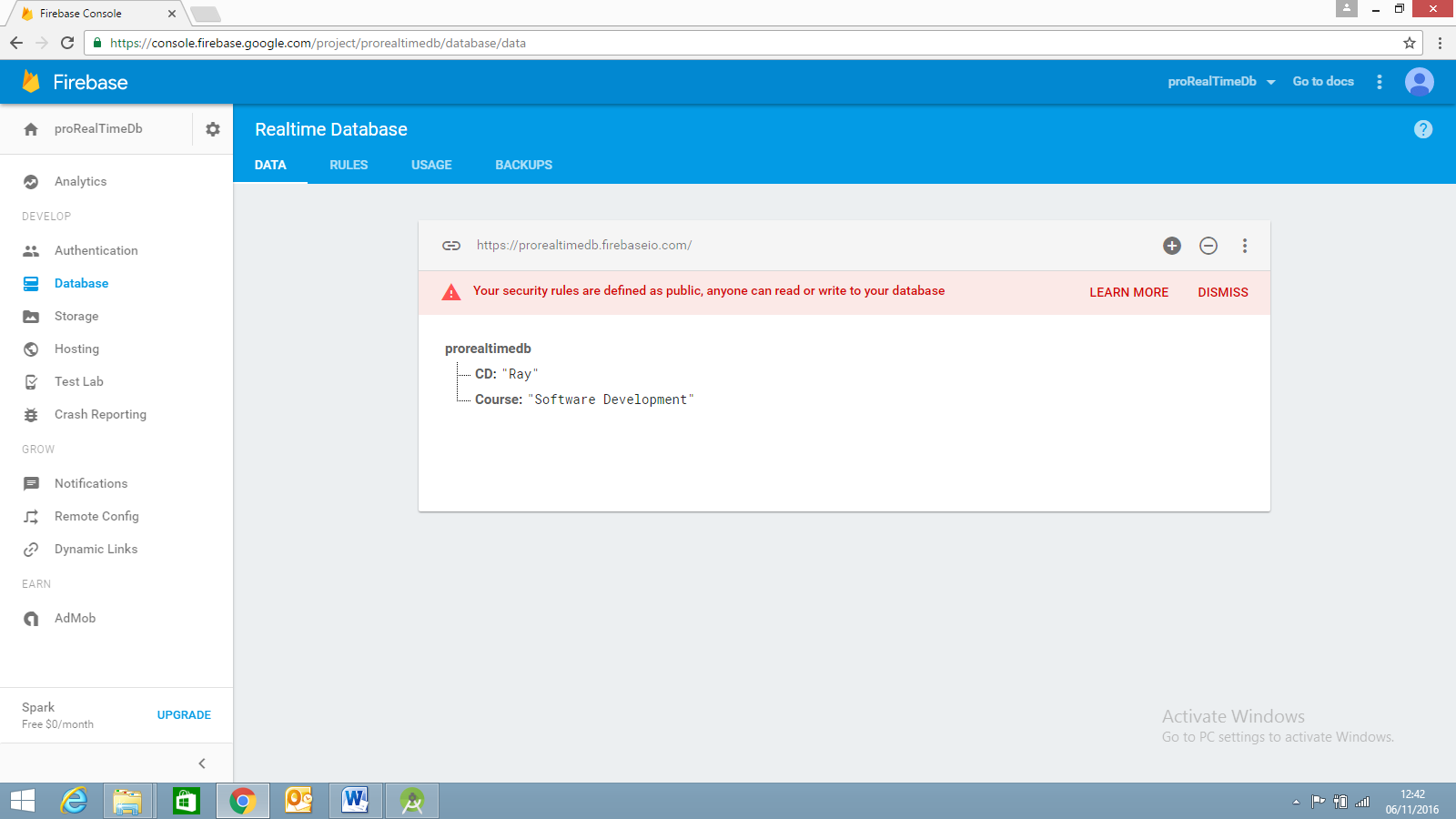


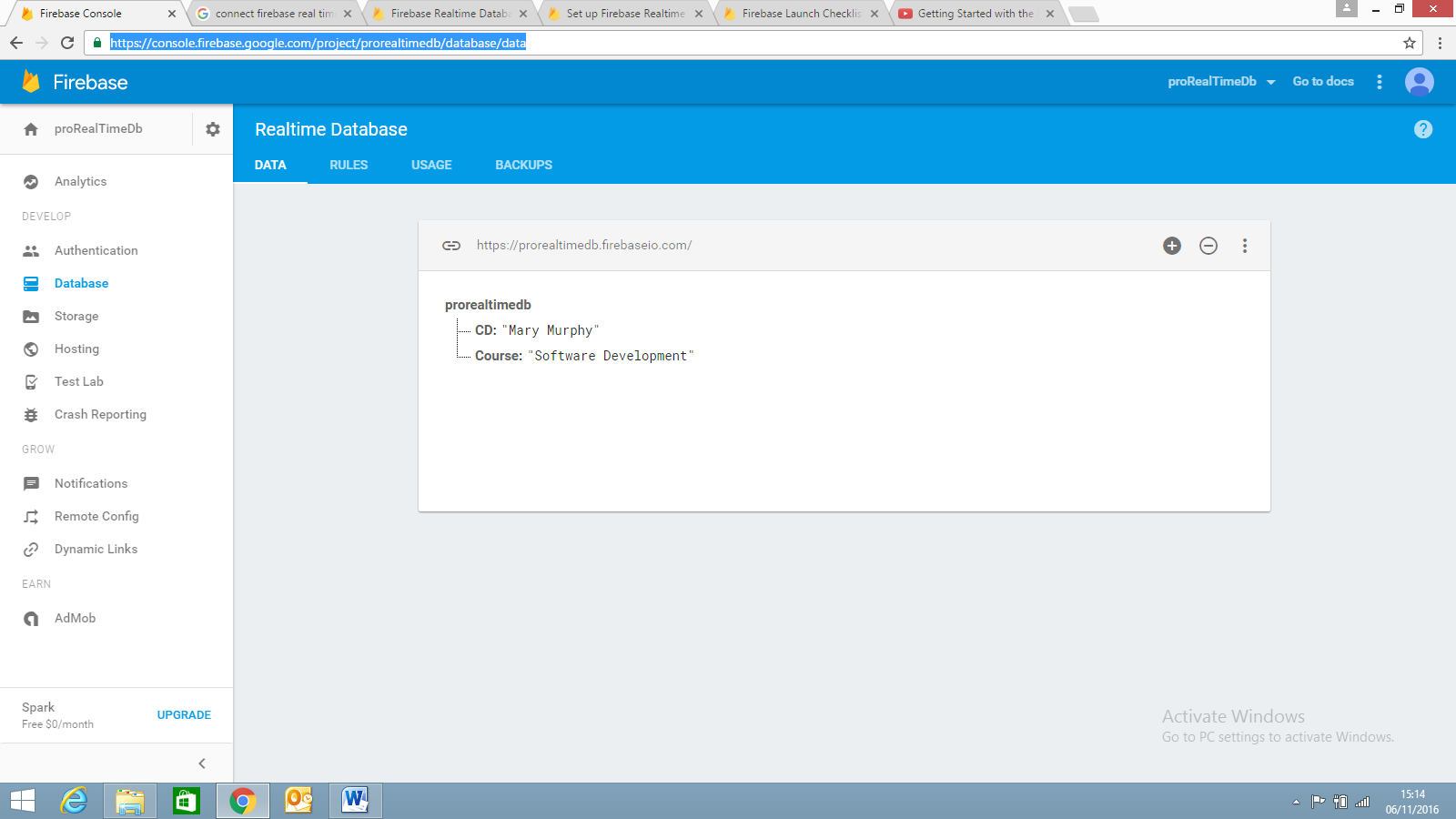
Add the code to the following files only (Note the package name in the Manifest.xml file)



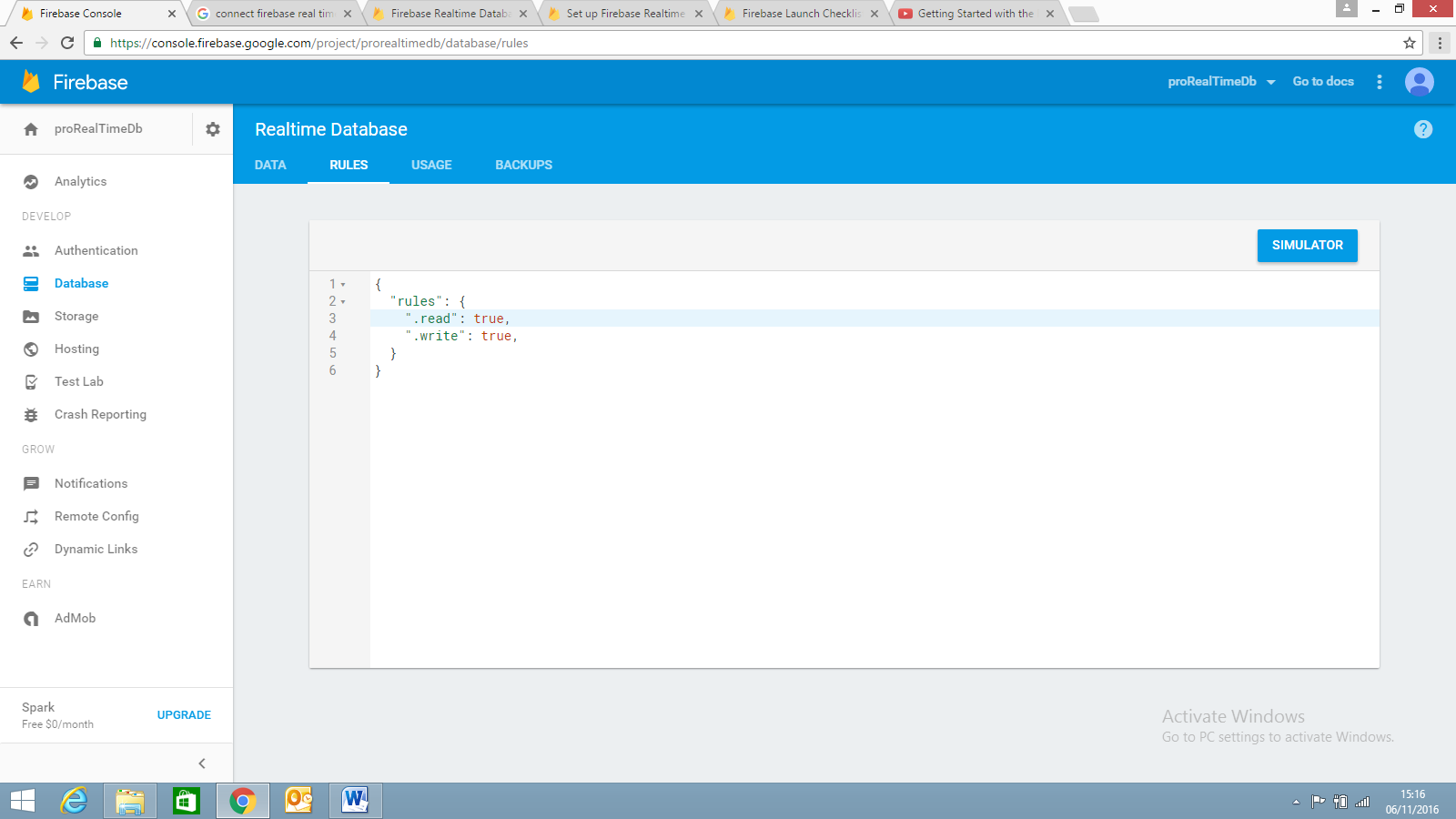


# Database (Real time database)





Set Rules to True which makes your data public – this would not be advisable for commercial apps but the apps we are working with do not contain important data.

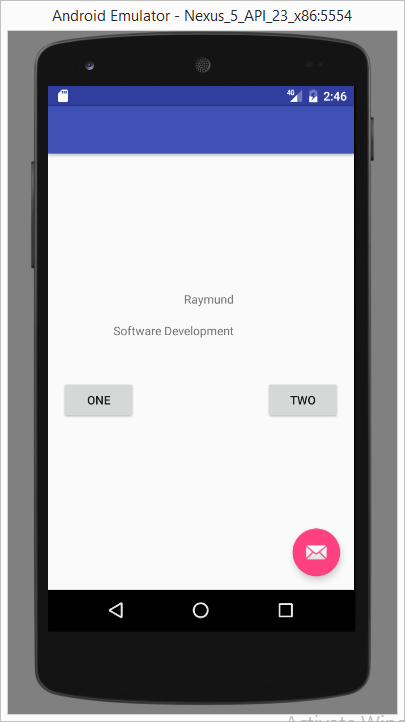


# Add the Realtime Database to your app

Reference: <https://firebase.google.com/docs/database/android/start/>

* Add the following line to build gradle (Module app) - compile 'com.google.firebase:firebase-database:9.8.0'
* Design your UI

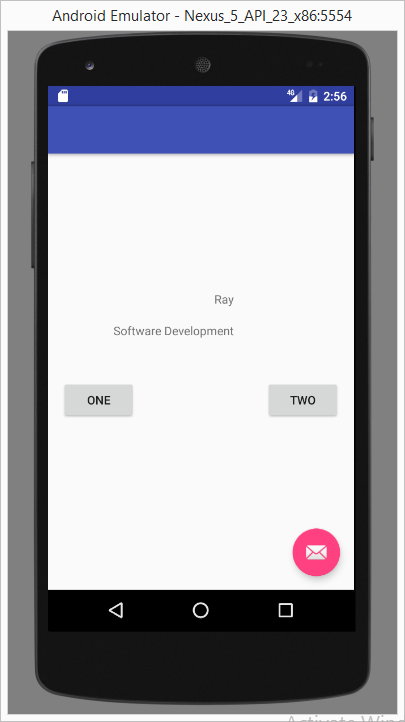
# Example 1



MainActivity.java Source code

**public class** MainActivity **extends** AppCompatActivity {  
  
 TextView **tvOne**;  
 TextView **tvTwo**;  
 Button **buttOne**;  
 Button **buttTwo**;  
  
 DatabaseReference **CD** = FirebaseDatabase.*getInstance*().getReference();  
 DatabaseReference **CourseDirector** = **CD**.child(**"CD"**);  
  
 DatabaseReference **Course** = FirebaseDatabase.*getInstance*().getReference();  
 DatabaseReference **CourseName** = **Course**.child(**"Course"**);  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 **tvOne** = (TextView)findViewById(R.id.***textView***);  
 **tvTwo** = (TextView)findViewById(R.id.***textView2***);  
 **buttOne**=(Button)findViewById(R.id.***buttOne***);  
 **buttTwo**=(Button)findViewById(R.id.***buttTwo***);  
 }  
  
 @Override  
 **protected void** onStart() {  
 **super**.onStart();  
 **CourseDirector**.addValueEventListener(**new** ValueEventListener() {  
 @Override  
 **public void** onDataChange(DataSnapshot dataSnapshot) {  
 String text = dataSnapshot.getValue(String.**class**);  
 **tvOne**.setText(text);  
 }  
  
 @Override  
 **public void** onCancelled(DatabaseError databaseError) {  
 }  
 });  
  
 **CourseName**.addValueEventListener(**new** ValueEventListener() {  
 @Override  
 **public void** onDataChange(DataSnapshot dataSnapshot) {  
 String text = dataSnapshot.getValue(String.**class**);  
 **tvTwo**.setText(text);  
 }  
  
 @Override  
 **public void** onCancelled(DatabaseError databaseError) {  
  
 }  
 });  
  
 }

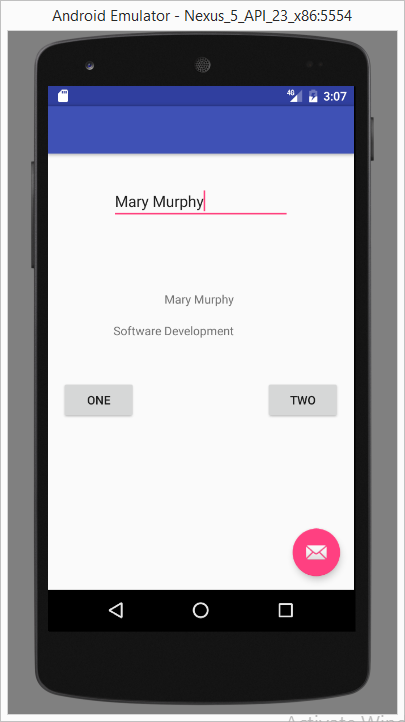
# Example 1 – with code for two buttons



**Add the following lines to code the two buttons underneath the code above but inside the onStart method**

**buttOne**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 **CourseDirector**.setValue(**"Ray"**);  
 }  
});  
  
**buttTwo**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 **CourseDirector**.setValue(**"Raymund"**);  
 }  
});

# Example 1 with code for EditText



**public class** MainActivity **extends** AppCompatActivity {  
  
 TextView **tvOne**;  
 TextView **tvTwo**;  
 Button **buttOne**;  
 Button **buttTwo**;  
 EditText **etName**;  
  
 DatabaseReference **CD** = FirebaseDatabase.*getInstance*().getReference();  
 DatabaseReference **CourseDirector** = **CD**.child(**"CD"**);  
  
 DatabaseReference **Course** = FirebaseDatabase.*getInstance*().getReference();  
 DatabaseReference **CourseName** = **Course**.child(**"Course"**);  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 **tvOne** = (TextView)findViewById(R.id.***textView***);  
 **tvTwo** = (TextView)findViewById(R.id.***textView2***);  
 **buttOne**=(Button)findViewById(R.id.***buttOne***);  
 **buttTwo**=(Button)findViewById(R.id.***buttTwo***);  
 **etName**=(EditText)findViewById(R.id.***editText***);  
 }  
  
 @Override  
 **protected void** onStart() {  
 **super**.onStart();  
 **CourseDirector**.addValueEventListener(**new** ValueEventListener() {  
 @Override  
 **public void** onDataChange(DataSnapshot dataSnapshot) {  
 String text = dataSnapshot.getValue(String.**class**);  
 **tvOne**.setText(text);  
 }  
  
 @Override  
 **public void** onCancelled(DatabaseError databaseError) {  
 }  
 });  
  
 **CourseName**.addValueEventListener(**new** ValueEventListener() {  
 @Override  
 **public void** onDataChange(DataSnapshot dataSnapshot) {  
 String text = dataSnapshot.getValue(String.**class**);  
 **tvTwo**.setText(text);  
 }  
  
 @Override  
 **public void** onCancelled(DatabaseError databaseError) {  
  
 }  
 });  
  
 **buttOne**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 String strCD;  
 strCD=**etName**.getText().toString();  
 **CourseDirector**.setValue(strCD);  
  
 }  
 });  
  
 **buttTwo**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 **CourseDirector**.setValue(**"Raymund"**);  
 }  
 });  
  
 }